

# Barriers and Roadblocks to Universal Newborn Hearing Screening

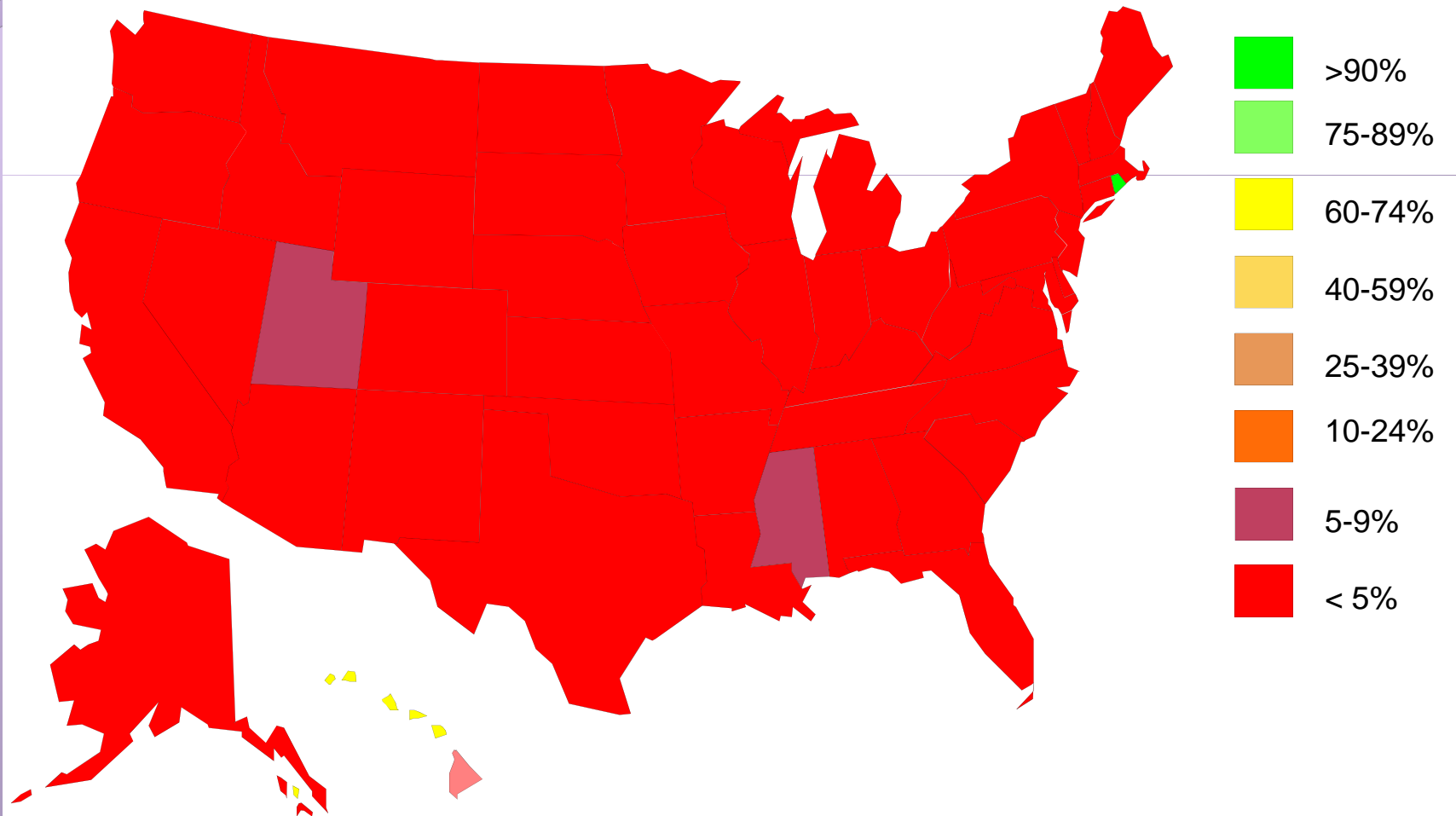
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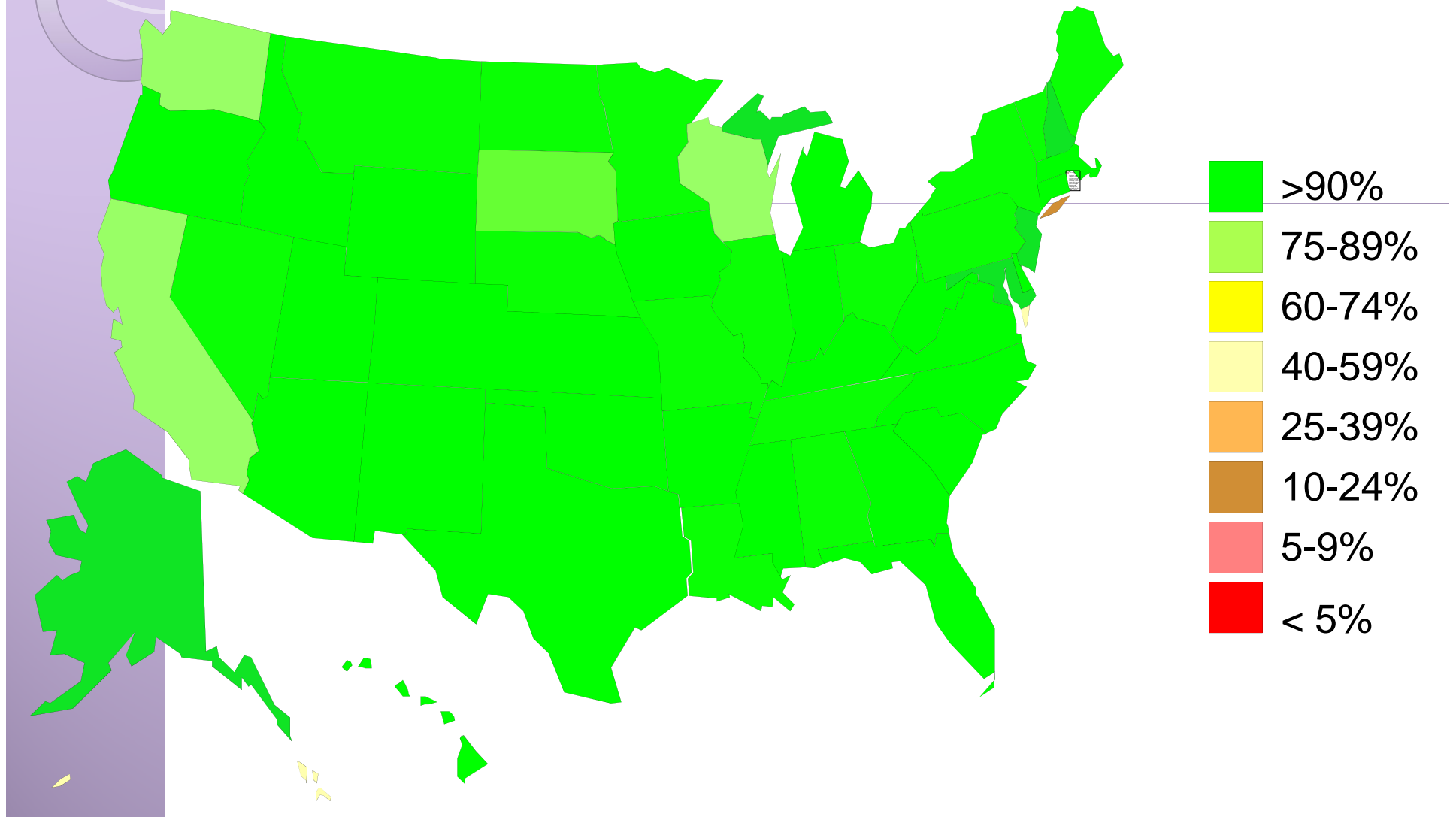
Newborn Hearing Consultants



# Percent of Neonates Screened - 1993

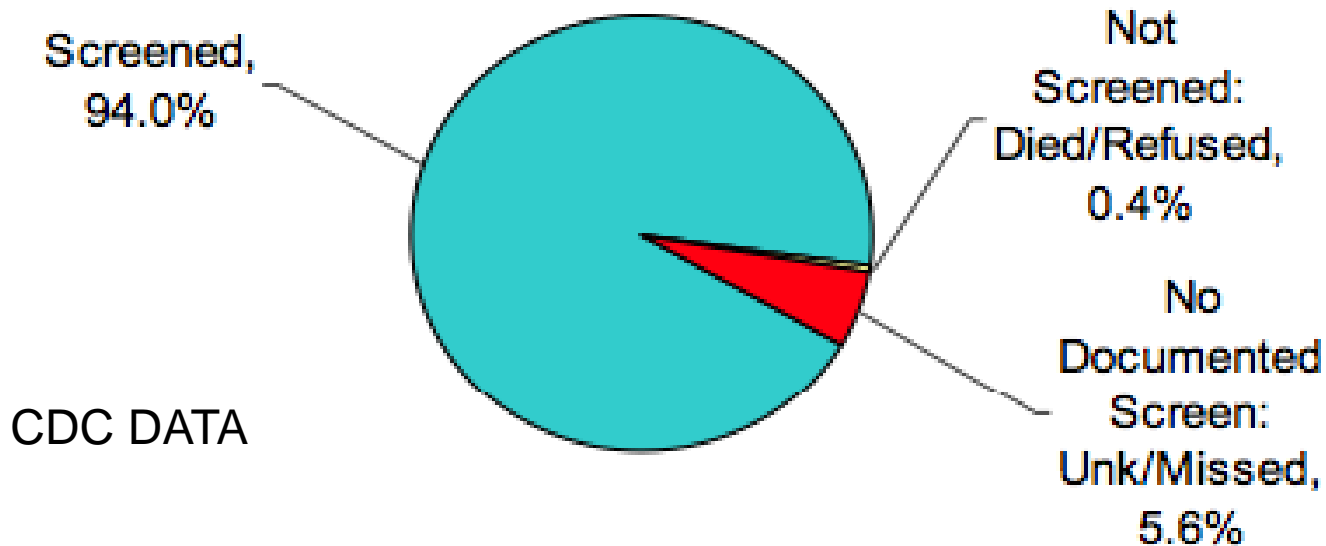


# Percent of Babies Screened - 2007



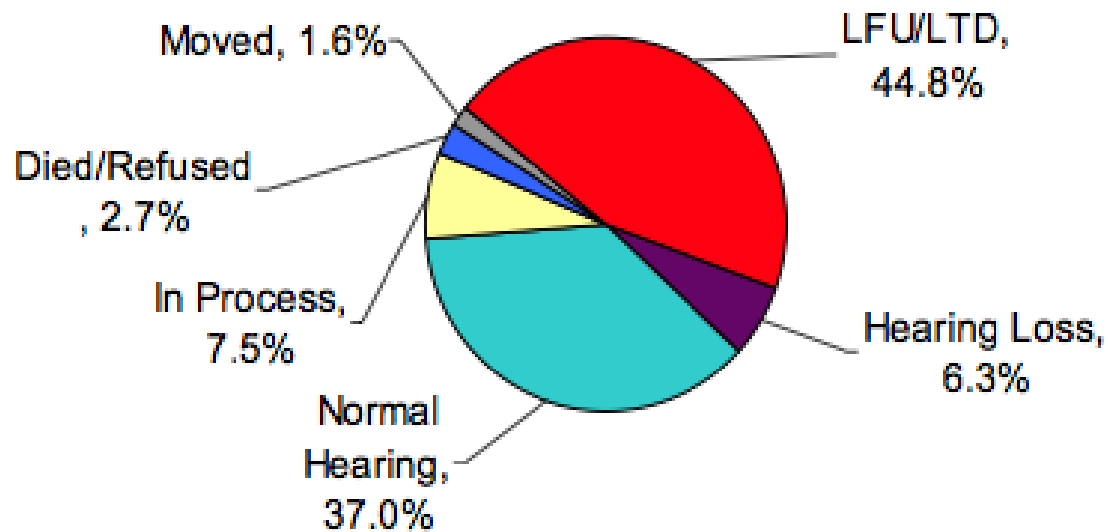
# 94% Screened in the USA by 2007 according to CDC Data

**Documented Hearing Screening Status of Infants  
(U.S. 2007) Total Occurrent Births = 4,016,827**



# 44% of infants that referred on their hospital screen in 2007 were lost to follow-up!

**Documented Status of Infants  
Not Passing Hearing Screening  
(U.S., 2007) Total Not Pass = 63,269**



# Roadblocks & Barriers





## **Roadblock: Reimbursement**

- Without reimbursement for screening; program updates, equipment purchases and technician salaries are impacted

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## **Barriers:**

- Reimbursement part of DRG
- If outsourced, reimbursement varies among private pay and Medicaid services
- Huge variance in reimbursement amounts across the state
- Infant's first and last name required: Parents do not always have a name for the baby.
- Insurance may be undetermined



## Possible Solutions for Reimbursements

- Verify billing information on hospital face sheet
  - Obtain a copy of drivers license
  - Obtain a copy of insurance card
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- Obtain a 2<sup>nd</sup> phone number to contact
  - If database available, update all information





## **Roadblock: Need for new equipment**

- Now 5-10 years since state mandate, equipment is old, not supported or company no longer in existence
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### **Barriers:**

- Lack of information on how to select appropriate equipment.
- Training on new equipment may be necessary
- Funding for new equipment is not always available

# Staying current on technology





## Possible Solutions

- Bring in audiology consultants with knowledge of screening equipment and requirements of JCIH 2007
- Identify specific needs of the hospital

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- Compare equipment capabilities and ease of understanding for training purposes
- Compare costs for disposables.
- Information systems should be consulted in the selection of equipment for computer support
- Negotiate prices for equipment

# Roadblock: Cost Effectiveness of screening programs

- Test protocol, paperwork and Technologist costs.

## Barriers:

- Difficult to test infants
- NICU babies may require more time to test
- Adding demographic information to the screening equipment AND to the data base takes additional time.
- Going from room to room to screen infants may increase cost of screening program
- For those programs requiring verification of insurance, additional time is needed.





## Possible Solutions for Cost Effectiveness

- Systematic protocol for screening “difficult to test” infants with clearly identified timelines per infant
- Prioritizing infants to test based on date of birth, c-sections versus vaginal birth
- Test infants in the nursery first before leaving to test in mothers’ room.
- Streamline data entry by uploading information directly from medical records.
- Reduce paperwork wherever possible.

## Roadblock: High Risk monitoring

- Identification of risk factors for ongoing follow-up is site dependent



### Barriers:

- Information not readily available for screener
- Data is not always required by the Dept. of Health
- Ongoing monitoring is dependent on the physician referring for follow-up testing



## Possible Solutions for High Risk Monitoring

- In-service nursing staff on importance of identifying risk indicators for late onset or progressive hearing loss
- Post the JCIH 2007 risk indicator list in a prominent location as a gentle reminder for getting this information from the nursing or medical staff
- Ensure screening staff are noting risk indicators in data base
- Educate parents on the importance for follow-up screening with developmental milestone brochure
- In-service Medical Home providers regarding risk indicators



## **Roadblock: Training**

- Lack of comprehensive training to all staff.

## **Barriers:**

- Training may be inconsistent for each screener in the hospital or even between hospital sites.
- Training often provided by a screener.
- Clear expectations are not provided to the screener.
- Training on equipment sometimes provided by a manufacturer who is not readily available for equipment difficulties or troubleshooting
- Too many staff are providing the screenings





## **Possible Solutions for training issues:**

- Introductory information could be provided through screening modules provided by NCHAM
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## All the critical information for quality newborn hearing screening.

The Curriculum Disc will play on a standard movie DVD player or on a computer with DVD movie player software.

- Insert the DVD into the player and choose the section from the menu that you want to view.
- After choosing a section you can:
  - Play Automatically
  - Play Manually (pause after each slide)
  - Thumbnails (preview each slide)
- For Manual Play and Thumbnails, use the "Next Chapter" button on your remote to advance to the next slide.
- Use the pause button on your player to pause the playback at any time.

The Resources Disc is a computer data disc. It can be used with either a Windows or Macintosh computer. The files on the disc are in Microsoft Word (.DOC) and Adobe Acrobat (.PDF) format. You may need to install the Adobe Acrobat Reader program in order to view the Acrobat PDF files.



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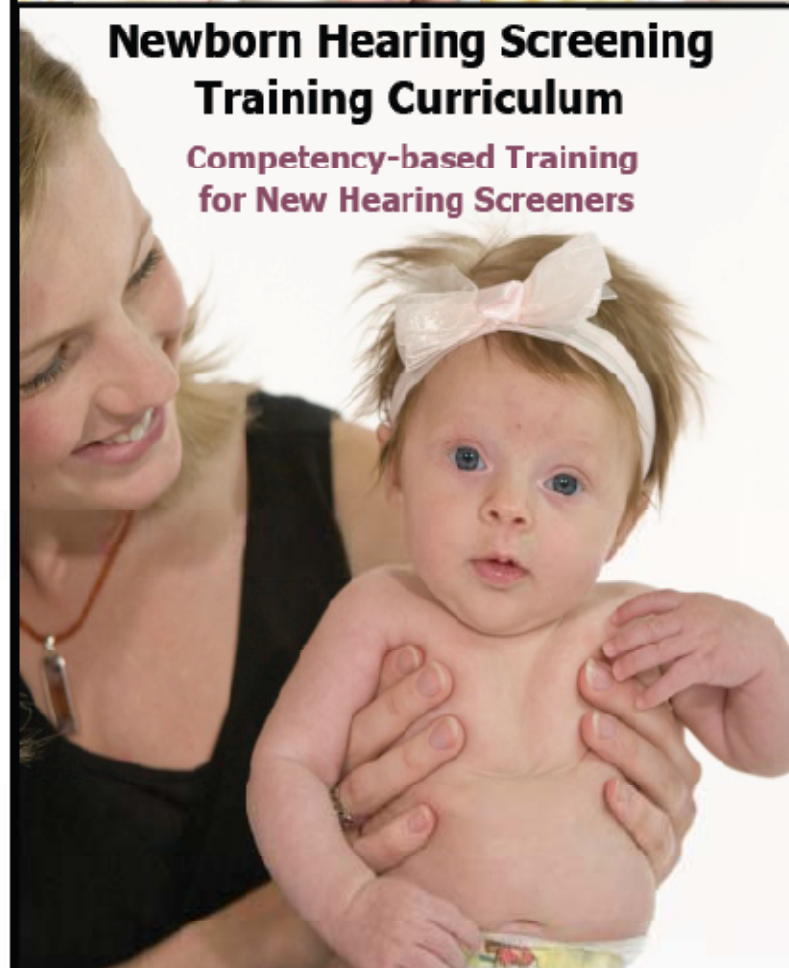
Newborn Hearing Screening Training Curriculum

2 Disc Set



## Newborn Hearing Screening Training Curriculum

Competency-based Training for New Hearing Screeners



[http://www.infanthearing.org/nhstc\\_dvd/index.html](http://www.infanthearing.org/nhstc_dvd/index.html)



## **Possible Solutions for training issues:**

- Screeners should shadow experienced screeners to have a better understanding of the “big picture”.
- Program manager should train new staff.

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- Provide a handbook to each screener outlining all Policies and Procedures with step by step directions on use of the equipment.
- In-service hospital staff on what to expect from the screener.
- Limit the number of individuals that have access to the screening equipment

# Roadblock: Staff turnover

## Barriers:

- College student workers graduating
- Commitment of employee/Motivation of employee
- Salaries





## Possible solutions to staff turnover

- Identify the importance of the hearing screener
  - Look for potential employees who are interested in the screening program to begin with.
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- Asking for “if possible” a commitment of time to the job because of time intensive training that is involved
  - Be willing to work with a number of part time staff to allow for flexibility in coverage
  - Staff hospitals based on general census of the hospital
  - Regular staff meetings

## Roadblock: Hospital

- Personnel conflicts
- Physical environment
- Equipment



## Barriers:

- Generally, hearing screeners are just above the photo lady with regard to the the newborn baby.
- The environment the screener works in is acoustically challenging.
- Access to the internet may be challenging.
- Computer glitches or human errors may occur to slow down the screening process.





## Solutions: to Hospital Roadblocks

- Screeners must be flexible and yield to the hectic schedules of the nurses and doctors.
- Screeners must find a location where they can screen the babies with minimal background noise
  - quiet room designated for screening
  - using an unused patient room
  - using an isolation room when not in use
  - closet, supply room
- When access to the internet is critical, may want a direct ethernet connection versus wireless





## Solutions to Hospital Barriers contd.

- Screeners must have better than average computer skills so they can address issues that come up daily. (They must be able to modify letters, locate uploads, archive previous testing, export test results and download tests from the correct file.)
- Screeners need to identify duplicate names in the database, watch for transposed medical record numbers.
- Screeners must also have access to a knowledgeable person to walk them through specific procedural problems.



# Solutions: to Hospital Roadblocks continued

- Screener must be viewed as part of the team

Screener

Family

Nursing  
staff

Medical  
Home

Specialty  
Medical  
Care

Photo  
Lady





## **Roadblock: Non-English speaking Families**

Communicating with non-english speaking families.

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### **Barriers:**

- Difficult to obtain family high risk information.
- Difficult to update address or insurance information.
- Difficult to explain screening results.
  - Difficult to access Interpreters/translators who can assist in communication with families.
  - Many hospitals are unwilling or unable to pay for Interpreters or translators due to lack of funds.



## **Solutions: Non-English speaking families**

- Forms and brochures translated in primary languages used within the hospital community
- Identifying what interpreting services are available within the screening hospital.
- Training screening personnel in basic language necessary to convey information to parents. (ie: cheat sheets of commonly used phrases or words)

## **Barriers/Roadblocks...so worth it!**

